

# results of BLAST

### **BLASTP 2.2.7 [Dec 30 2003]**

#### Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1072811300-17465-209900690670.BLASTQ4

Query=

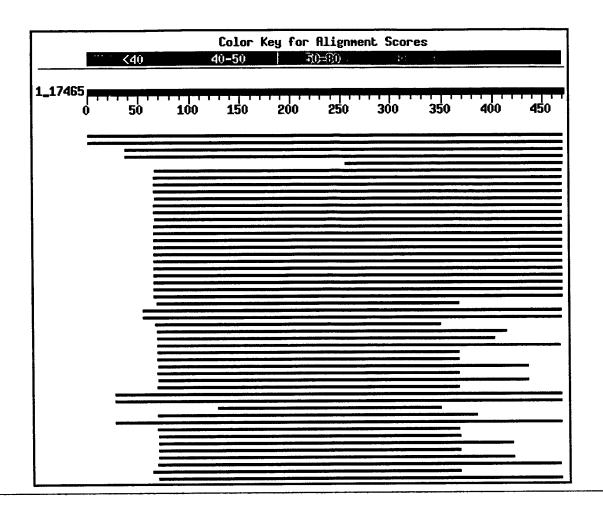
(471 letters)

If you have any problems or questions with the results of this search please refer to the BLAST FAQs

Taxonomy reports

## <u>Distribution of 50 Blast Hits on the Query Sequence</u>

Mouse-over to show defline and scores. Click to show alignments



| Sequences producing significant alignments:   | Score<br>(bits)          | E<br>Value                         |
|---|--------------------------|------------------------------------|
| gi 32699007 ref NP 872395.1  5-hydroxytryptamine serotonin  | 954                      | 0.0 L                              |
| gi 37574914 gb AAQ93477.1  5-HT3c1 serotonin receptor-like  | 924                      | 0.0                                |
| <pre>gi 38146010 ref NP 938055.1  5-hydroxytryptamine serotonin</pre>   | <u>854</u>               | 0.0                                |
| <pre>gi 18640740 ref NP_570126.1  5-hydroxytryptamine receptor 3</pre>  | <u>681</u>               | 0.0                                |
| gi 32698904 ref NP_872343.1  5-hydroxytryptamine receptor 3   | <u> 367</u>              | e-100 L                            |
| qi 9790622 qb AAB37533.2  5-hydroxytryptamine type 3AS rece   | <u>291</u>               | 2e-77                              |
| gi 30583247 gb AAP35868.1  5-hydroxytryptamine (serotonin)  | <u>291</u>               | 3e-77 L                            |
| gi 4504543 ref NP_000860.1  5-hydroxytryptamine (serotonin) gi 30585371 gb AAP36958.1  Homo sapiens 5-hydroxytryptamine gi 1586341 prf  2203408A serotonin 3AS receptor gi 2978508 gb AAC06137.1  5-HT3-As receptor precursor [Cavi | 291<br>291<br>290<br>287 | 3e-77 L<br>3e-77<br>5e-77<br>3e-76 |
| <pre>gi 13242306 ref NP 077370.1  5-hydroxytryptamine (serotonin gi 8247752 dbj BAA96417.1  ferret 5-HT3A receptor [Mustela</pre>   | 285<br>285               | 9e-76 L<br>1e-75                   |
| <pre>gi 1168223 sp P35563 5HT3 RAT 5-hydroxytryptamine 3 recepto gi 2144046 pir  I58179 5HT3 receptor subunit - rat (fragmen</pre>  | <u>284</u><br>283        | 2e-75 4e-75                        |
| <u>gi 488695 emb CAA55871.1 </u> 5HT3 receptor [Mus musculus]<br><u>gi 24211440 sp 070212 5HT3 CAVPO</u> 5-hydroxytryptamine 3 rece   | 283<br>283               | 5e-75<br>7e-75                     |
| <pre>gi 7305175 ref NP 038589.1  5-hydroxytryptamine (serotonin) gi 543183 pir  S41757 5-hydroxytryptamine-3 receptor - mouse</pre>   | <u>282</u><br><u>281</u> | 1e-74 L<br>2e-74                   |

```
2e-74
                                                                  281
                           5HT3 receptor [Mus musculus]
gi|488694|emb|CAA55870.1|
                                                                        2e-74
                                                                  281
                            5-hydroxytryptamine receptor 3A ...
gi | 21314591 | gb | AAM47014.1 |
                           5-hydroxytryptamine3 receptor [Mu...
                                                                        3e-74
                                                                  280
gi|313864|emb|CAA51089.1|
                                                                        7e-74
                                                                  279
gi|817940|emb|CAA80453.1|
                           5HT3 receptor [Mus musculus]
                                                                        3e-72 ■
                                                                  274
gi|3115222|emb|CAA05851.1|
                            serotonin receptor [Homo sapiens]
                                                                        5e-54
                            MGC52789 protein [Xenopus laevis]
                                                                  213
gi|28277272|gb|AAH44101.1|
                                                                        8e-54 L
                             5-hydroxytryptamine (serotonin)...
                                                                  213
gi|9938026|ref|NP 064670.1|
                                                                        1e-53
                                                                  212
                              5-hydroxytryptamine (serotonin...
gi|11559956|ref|NP 071525.1|
                                                                        ·8e-52 L
                                                                  206
                             5-hydroxytryptamine (serotonin)...
gi|5174469|ref|NP 006019.1|
                                                                  176
                                                                        6e-43
gi|31790123|gb|AAP58387.1|
                            nicotinic acetylcholine receptor...
                                                                  173
                                                                         6e-42
                            nicotinic acetylcholine receptor...
gi|31790121|gb|AAP58386.1|
                                                                        3e-41
                           nicotinic acetylcholine receptor ...
                                                                  171
gi|7407125|gb|AAF61920.1|
                                                                  171
                                                                         3e-41
qi|9501306|emb|CAB99482.1|
                            alpha 10 subunit of nicotinic ac...
                             cholinergic receptor, nicotinic...
                                                                         4e-41
                                                                  171
gi|8923742|ref|NP 060051.1|
                                                                        4e-41 L
gi|5777609|emb|CAB53472.1| nicotinic acetylcholine receptor...
                                                                  170
                                                                        6e-41
                                                                  170
gi|38081753|ref|XP 132045.2|
                              cholinergic receptor, nicotini...
                                                                        7e-41 L
                              cholinergic receptor, nicotini...
                                                                  170
gi|31542395|ref|NP 067344.2|
                                                                         1e-40
gi|31790117|gb|AAP58384.1| nicotinic acetylcholine receptor...
                                                                  169
                                                                        2e-40
                              cholinergic receptor, nicotini...
                                                                  168
gi|27532980|ref|NP 775304.1|
                                                                        2e-40
gi|18542399|gb|AAL75573.1| nicotinic acetylcholine receptor...
                                                                  168
                                                                        2e-40
                                                                  168
                            5-hydroxytryptamine 3 receptor B...
gi|11120504|gb|AAG30903.1|
gi|6692362|gb|AAF24618.1| neuronal acetylcholine receptor s...
                                                                         4e-40
                                                                   167
gi|19424304|ref|NP 598281.1| cholinergic receptor, nicotini...
                                                                  167
                                                                         6e-40 L
                                                                         9e-40 L
gi|12621088|ref|NP 075219.1| acetylcholine receptor alpha 9...
                                                                  166
gi|31745832|gb|AAP57217.1| nicotinic acetylcholine receptor...
                                                                         1e-39
                                                                   166
                                                                         2e-39
                              cholinergic receptor, nicotini...
                                                                   165
gi|17105332|ref|NP 476532.1|
                                                                         3e-39 L
gi|34878975|ref|XP 346491.1| hypothetical protein XP_346490...
                                                                   164
gi|34148146|gb|AAQ62631.1| nicotinic acetylcholine receptor...
                                                                   164
                                                                         3e-39
                                                                         5e-39
gi|11138123|ref|NP 065135.2| cholinergic receptor, nicotini...
                                                                   163
                                                                   162
                                                                         9e-39
qi|31745830|qb|AAP57216.1| nicotinic acetylcholine receptor...
gi|104800|pir||B39218 nicotinic acetylcholine receptor alph...
                                                                   162
                                                                         9e-39
```

#### Alignments

# Getselected sequences Selectially Selectially

Score = 954 bits (2467), Expect = 0.0 Identities = 467/471 (99%), Positives = 469/471 (99%)

Query: 1 MLAFILSRATPRPALGPLSYREHRVALLHLTHSMSTTGRGVTFTINCSGFGQHGADPTAV 60 MLAFILSRATPRPALGPLSYRE RVALLHLTHSMSTTGRGVTFTINCSGFGQHGADPTA+

Sbjct: 1 MLAFILSRATPRPALGPLSYRERRVALLHLTHSMSTTGRGVTFTINCSGFGQHGADPTAL 60

Query: 61 NSVFNRKPFRPVTNISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDNPFISWNPE 120 NSVFNRKPFRPVTNISV TQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDNPFISWNPE

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Sbjct: 61 NSVFNRKPFRPVTNISVLTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDNPFISWNPE 120
Query: 121 ECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLD 180
           ECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLD
Sbjct: 121 ECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLD 180
Ouery: 181 IFYFPFDOONCTLTFSSFLYTVDSMLLDMEKEVWEITDASRNILQTHGEWELLGLSKATA 240
           I FYFPFDOONCTLTFSSFLYTVDSMLLDMEKEVWEITDASRNILQTHGEWELLGLSKATA
Sbjct: 181 IFYFPFDQQNCTLTFSSFLYTVDSMLLDMEKEVWEITDASRNILQTHGEWELLGLSKATA 240
Ouery: 241 KLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITL 300
           KLSRGGNLYD+IVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITL
Sbjct: 241 KLSRGGNLYDRIVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITL 300
Query: 301 LLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLPR 360
           LLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLPR
Sbjct: 301 LLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLPR 360
Query: 361 WLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGVKEPEVSAGQMPGPAEAELTGGSE 420
           WLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGVKEPEVSAGQMPGPAEAELTGGSE
Sbjct: 361 WLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGVKEPEVSAGQMPGPAEAELTGGSE 420
Query: 421 WTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLFMASSIITVICLWNT 471
           WTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLFMASSIITVICLWNT
Sbjct: 421 WTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLFMASSIITVICLWNT 471
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Length = 456

5-HT3cl serotonin receptor-like protein [Homo sapi

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Score = 924 \text{ bits } (2387), \text{ Expect = } 0.0
 Identities = 455/471 (96%), Positives = 456/471 (96%), Gaps = 15/471 (3%)
          MLAFILSRATPRPALGPLSYREHRVALLHLTHSMSTTGRGVTFTINCSGFGQHGADPTAV 60
Query: 1
           MLAFILSRATPRPALGPLSYREHRVALLHLTHSMSTTGRGVTFTINCSGFGOHGADPTA+
          MLAFILSRATPRPALGPLSYREHRVALLHLTHSMSTTGRGVTFTINCSGFGQHGADPTAL 60
Sbjct: 1
Query: 61 NSVFNRKPFRPVTNISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDNPFISWNPE 120
           NSVFNRKPFRPVTNISVPTQVNISFAMSAILDV
                                                           VWDNPFISWNPE
Sbjct: 61 NSVFNRKPFRPVTNISVPTQVNISFAMSAILDV------VWDNPFISWNPE 105
Query: 121 ECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLD 180
           ECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLD
Sbjct: 106 ECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLD 165
Query: 181 IFYFPFDQQNCTLTFSSFLYTVDSMLLDMEKEVWEITDASRNILQTHGEWELLGLSKATA 240
           IFYFPFDQQNCTLTFSSFLYTVDSMLLDMEKEVWEITDASRNILQTHGEWELLGLSKATA
Sbjct: 166 IFYFPFDQQNCTLTFSSFLYTVDSMLLDMEKEVWEITDASRNILQTHGEWELLGLSKATA 225
Query: 241 KLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITL 300
           KLSRGGNLYDQIVFYVAIRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITL
Sbjct: 226 KLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITL 285
Ouery: 301 LLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLPR 360
           LLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLPR
Sbjct: 286 LLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLPR 345
Query: 361 WLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGVKEPEVSAGQMPGPAEAELTGGSE 420
           WLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGVKEPEVSAGQMPGPAEAELTGGSE
```

Sbjct: 346 WLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGVKEPEVSAGQMPGPAEAELTGGSE 405

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Query: 421 WTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLFMASSIITVICLWNT 471
          WTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLFMASSIITVICLWNT
Sbjct: 406 WTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLFMASSIITVICLWNT 456
gi|37574912|gb|AAQ93476.1| 5-HT3c1 serotonin receptor-like protein [Homo sapien
         Length = 441
 Score = 854 bits (2206), Expect = 0.0
 Identities = 418/434 (96%), Positives = 419/434 (96%), Gaps = 15/434 (3%)
Query: 38 GRGVTFTINCSGFGQHGADPTAVNSVFNRKPFRPVTNISVPTQVNISFAMSAILDVNEQL 97
          GRGVTFTINCSGFGQHGADPTA+NSVFNRKPFRPVTNISVPTQVNISFAMSAILDV
Sbjct: 23 GRGVTFTINCSGFGQHGADPTALNSVFNRKPFRPVTNISVPTQVNISFAMSAILDV---- 78
Query: 98 HLLSSFLWLEMVWDNPFISWNPEECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTA 157
                     VWDNPFISWNPEECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTA
Sbjct: 79 ------VWDNPFISWNPEECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTA 127
Query: 158 YVSNEGRIRYKKPMKVDSICNLDIFYFPFDQQNCTLTFSSFLYTVDSMLLDMEKEVWEIT 217
           YVSNEGRIRYKKPMKVDSICNLDIFYFPFDQQNCTLTFSSFLYTVDSMLLDMEKEVWEIT
Sbjct: 128 YVSNEGRIRYKKPMKVDSICNLDIFYFPFDQQNCTLTFSSFLYTVDSMLLDMEKEVWEIT 187
Query: 218 DASRNILQTHGEWELLGLSKATAKLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLV 277
           DASRNILQTHGEWELLGLSKATAKLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLV
Sbjct: 188 DASRNILQTHGEWELLGLSKATAKLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLV 247
Query: 278 AIDALSFYLPVKSGNRVPFKITLLLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGS 337
          AIDALSFYLPVKSGNRVPFKITLLLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGS
Sbjct: 248 AIDALSFYLPVKSGNRVPFKITLLLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGS 307
Query: 338 LLETIFITHLLHVATTQPPPLPRWLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGV 397
           LLETIFITHLLHVATTQPPPLPRWLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGV
Sbjct: 308 LLETIFITHLLHVATTQPPPLPRWLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGV 367
Ouery: 398 KEPEVSAGOMPGPAEAELTGGSEWTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLF 457
           KEPEVSAGQMPGPAEAELTGGSEWTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLF
Sbjct: 368 KEPEVSAGQMPGPAEAELTGGSEWTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLF 427
Query: 458 MASSIITVICLWNT 471
           MASSIITVICLWNT
Sbjct: 428 MASSIITVICLWNT 441
 | S-hydroxytryptamine receptor 3 subunit C [Homo s
 gi|18251966|gb|AAL66182.1| 5-hydroxytryptamine receptor 3 subunit C [Homo sapie
          Length = 447
 Score = 681 \text{ bits } (1756), Expect = 0.0
 Identities = 327/434 (75%), Positives = 368/434 (84%), Gaps = 9/434 (2%)
Query: 38 GRGVTFTINCSGFGQHGADPTAVNSVFNRKPFRPVTNISVPTQVNISFAMSAILDVNEQL 97
           GRG FTINCSGF QHG DP +VF+RK FRP TN S+PT+VNISF +SAIL V+ QL
Sbjct: 23 GRGDAFTINCSGFDQHGVDPAVFQAVFDRKAFRPFTNYSIPTRVNISFTLSAILGVDAQL 82
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Query: 98 HLLSSFLWLEMVWDNPFISWNPEECEGITKMSMAAKNLWLPDIFIIELMDVDKTPKGLTA 157
           LL+SFLW+++VWDNPFI+WNP+EC GI K+++ A+NLWLPDIFI+E MDVD+TP GLTA
Sbjct: 83 QLLTSFLWMDLVWDNPFINWNPKECVGINKLTVLAENLWLPDIFIVESMDVDQTPSGLTA 142
Query: 158 YVSNEGRIRYKKPMKVDSICNLDIFYFPFDQQNCTLTFSSFLYTVDSMLLDMEKEVWEIT 217
          Y+S+EGRI+Y KPM+V SIC LDIFYFPFDQQNCT TFSSFLYTVDSMLL M+KEVWEIT
Sbjct: 143 YISSEGRIKYDKPMRVTSICKLDIFYFPFDQQNCTFTFSSFLYTVDSMLLGMDKEVWEIT 202
Query: 218 DASRNILQTHGEWELLGLSKATAKLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLV 277
           D SR ++QT GEWELLG++KAT K+S G NLYDQI+FYVAIRRRPSLY+INLLVPS FLV
Sbjct: 203 DTSRKVIQTQGEWELLGINKATPKMSMGNNLYDQIMFYVAIRRRPSLYIINLLVPSSFLV 262
Query: 278 AIDALSFYLPVKSGNRVPFKITLLLGYNVFLLMMSDLLPTSGTPLIGVYFALCLSLMVGS 337
          AIDALSFYLP +S NR PFKITLLLGYNVFLLMM+DLLP SGTPLI VYFALCLSLMV S
Sbjct: 263 AIDALSFYLPAESENRAPFKITLLLGYNVFLLMMNDLLPASGTPLISVYFALCLSLMVVS 322
Query: 338 LLETIFITHLLHVATTQPPPLPRWLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGV 397
           LLET+FIT+LLHVATTOPPP+PRWLHSLLLHC SPGRCCPTAPQK NKG GLT THLPG
Sbjct: 323 LLETVFITYLLHVATTQPPPMPRWLHSLLLHCTSPGRCCPTAPQKGNKGLGLTLTHLPGP 382
Query: 398 KEPEVSAGQMPGPAEAELTGGSEWTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLF 457
                AG+ GP E E GGS WT+ Q
                                               +ELW+OFSHAMD +LFRLYLLF
Sbjct: 383 KEPGELAGKKLGPRETEPDGGSAWTKTQL-----MELWVQFSHAMDTLLFRLYLLF 433
Query: 458 MASSIITVICLWNT 471
           MASSI+TVI LWNT
Sbjct: 434 MASSILTVIVLWNT 447
5-hydroxytryptamine receptor 3 subunit C [Homo sapiens]
 gi|31790912|gb|AA038166.1| 5-hydroxytryptamine serotonin receptor 3D [Homo sapi
          Length = 279
 Score = 367 \text{ bits } (943), \text{ Expect = } e-100
 Identities = 188/232 (81%), Positives = 200/232 (86%), Gaps = 16/232 (6%)
Query: 256 VAIRRR--PSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITLLLGYNVFLLMMSD 313
           VAIR R PS YV+N LVPSG L+AIDALSFYLP +SGN PFK+T+LLGY+VFLLMM+D
Sbjct: 48 VAIRHRCRPSPYVVNFLVPSGILIAIDALSFYLPPESGNCAPFKMTVLLGYSVFLLMMND '107
Query: 314 LLPTSGTP----LI------GVYFALCLSLMVGSLLETIFITHLHVATTQPPPLP 359
LLP + T L+ GVYFALCLSLMVGSLLETIFITHLHVATTQP PLP
Sbjct: 108 LLPATSTSSHASLVRPHPSRDQKRGVYFALCLSLMVGSLLETIFITHLLHVATTQPLPLP 167
Query: 360 RWLHSLLLHCNSPGRCCPTAPQKENKGPGLTPTHLPGVKEPEVSAGQMPGPAEAELTGGS 419
                        GRCCPTAPOK NKGPG+TPTHLPGVKEPEVSAGQMPGP EAELTGGS
           RWLHSLLLHC
Sbjct: 168 RWLHSLLLHCTGQGRCCPTAPQKGNKGPGVTPTHLPGVKEPEVSAGQMPGPGEAELTGGS 227
Ouery: 420 EWTRAQREHEAQKQHSVELWLQFSHAMDAMLFRLYLLFMASSIITVICLWNT 471
           EWTRAQREHEAQKQHSVELW+QFSHAMDA+LFRLYLLFMASSIITVICLWNT
```

Sbjct: 228 EWTRAQREHEAQKQHSVELWVQFSHAMDALLFRLYLLFMASSIITVICLWNT 279

```
Score = 291 bits (745), Expect = 2e-77
Identities = 170/432 (39%), Positives = 254/432 (58%), Gaps = 33/432 (7%)
Query: 67 KPFRPVTNISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDNPFISWNPEECEGIT 126
          K RPV + PT V+I + AIL+V+E+ +L++++W W + F+ WNPE+ + IT
Sbjct: 47 KGVRPVRDWRKPTTVSIDVIVYAILNVDEKNQVLTTYIWYRQYWTDEFLQWNPEDFDNIT 106
Query: 127 KMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLDIFYFPF 186
                ++W+PDI I EL+DV K+P Y+ ++G ++ KP++V + C+LDI+ FPF
Sbjct: 107 KLSIPTDSIWVPDILINELVDVGKSPNIPYVYIRHQGEVQNYKPLQVVTACSLDIYNFPF 166
Query: 187 DQQNCTLTFSSFLYTVDSMLLDMEKEVWEITD---ASRNILQTHGEWELLGLSKATAKLS 243
          D QNC+LTF+S+L+T+ D+ +W + + R++ GEWELLG+
Sbjct: 167 DVQNCSLTFTSWLHTIQ----DINISLWRLPEKVKSDRSVFMNQGEWELLGVLPYFREFS 222
Query: 244 -RGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITLLL 302
              N Y ++ FYV IRRRP YV++LL+PS FL+ +D + FYLP SG RV FKITLLL
Sbjct: 223 MESSNYYAEMKFYVVIRRRPLFYVVSLLLPSIFLMVMDIVGFYLPPNSGERVSFKITLLL 282
Query: 303 GYNVFLLMMSDLLPTS--GTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLPR 360
          GY+VFL+++SD LP + GTPLIGVYF +C++L+V SL ETIFI L+H
Sbjct: 283 GYSVFLIIVSDTLPATAIGTPLIGVYFVVCMALLVISLTETIFIVRLVHKQDLQ-QPVPA 341
Query: 361 WLHSLLLHCNSPGRCC-----PTAPQKENK----GPGLTPTHLPGV----KEPEVS 403
          WL L+L .+ C
                                P A + K G
                                                    TH+ G
Sbjct: 342 WLRHLVLERIAWLLCLREQSTSQRPPATSQATKTDDCSAMGNHCTHMGGPQDFEKSPRDR 401
Query: 404 AGQMPGPAEAELT--GGSEWTRAQREHEAQKQHSVEL---WLQFSHAMDAMLFRLYLLFM 458
              P P EA L G + + R+ ++ E+ WL+ +D +LF +YLL +
Sbjct: 402 CSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREVARDWLRVGSVLDKLLFHIYLLAV 461
Query: 459 ASSIITVICLWN 470
           + IT++ LW+
Sbjct: 462 LAYSITLVMLWS 473
```

### 

Score = 291 bits (744), Expect = 3e-77

```
Query: 302 LGYNVFLLMMSDLLPTS--GTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLP 359
         LGY+VFL+++SD LP + GTPLIGVYF +C++L+V SL ETIFI L+H
Sbjct: 288 LGYSVFLIIVSDTLPATAIGTPLIGVYFVVCMALLVISLAETIFIVRLVHKQDLQ-QPVP 346
Query: 360 RWLHSLLLHCNSPGRCC-----PTAPQKENK----GPGLTPTHLPGV----KEPEV 402
          WL L+L + C PA + K G +H+ G
Sbjct: 347 AWLRHLVLERIAWLLCLREQSTSQRPPATSQATKTDDCSAMGNHCSHMGGPQDFEKSPRD 406
Query: 403 SAGQMPGPAEAELT--GGSEWTRAQREHEAQKQHSVEL---WLQFSHAMDAMLFRLYLLF 457
              P P EA L G + + R+ ++ E+ WL+
Sbjct: 407 RCSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREVARDWLRVGSVLDKLLFHIYLLA 466
Query: 458 MASSIITVICLWN 470
          + + IT++ LW+
Sbjct: 467 VLAYSITLVMLWS 479
5-hydroxytryptamine (serotonin) receptor-3 [Homo
          sapiens
 ion channel receptor) (5-HT3R)
 qi|681914|dbj|BAA08387.1|  serotonin 5-HT3 receptor [Homo sapiens]
 gi|3115224|emb|CAA05852.1| 5-hydroxytryptamine3 receptor [Homo sapiens]
                          serotonin 3 receptor [Homo sapiens]
 qi|9715820|emb|CAA06442.3|
                         5-hydroxytryptamine (serotonin) receptor 3A [Homo sa
 gi|12803101|gb|AAH02354.1|
 gi|37514834|gb|AAH04453.2| 5-hydroxytryptamine (serotonin) receptor 3A [Homo sa
         Length = 478
 Score = 291 \text{ bits } (744), \text{ Expect = } 3e-77
 Identities = 169/433 (39%), Positives = 254/433 (58%), Gaps = 33/433 (7%)
Query: 66 RKPFRPVTNISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDNPFISWNPEECEGI 125
          RK RPV + PT V+I + AIL+V+E+ +L++++W
                                                W + F + WNPE + + I
Sbjct: 46 RKGVRPVRDWRKPTTVSIDVIVYAILNVDEKNQVLTTYIWYRQYWTDEFLQWNPEDFDNI 105
Query: 126 TKMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLDIFYFP 185
                ++W+PDI I E +DV K+P Y+ ++G ++ KP++V + C+LDI+ FP
Sbjct: 106 TKLSIPTDSIWVPDILINEFVDVGKSPNIPYVYIRHQGEVQNYKPLQVVTACSLDIYNFP 165
Query: 186 FDQQNCTLTFSSFLYTVDSMLLDMEKEVWEITD---ASRNILQTHGEWELLGLSKATAKL 242
          FD QNC+LTF+S+L+T+ D+ +W + + R++
                                                 GEWELLG+
Sbjct: 166 FDVQNCSLTFTSWLHTIQ----DINISLWRLPEKVKSDRSVFMNQGEWELLGVLPYFREF 221
Ouery: 243 S-RGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITLL 301
              N Y ++ FYV IRRRP YV++LL+PS FL+ +D + FYLP SG RV FKITLL
Sbjct: 222 SMESSNYYAEMKFYVVIRRRPLFYVVSLLLPSIFLMVMDIVGFYLPPNSGERVSFKITLL 281
Query: 302 LGYNVFLLMMSDLLPTS--GTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLP 359
          LGY+VFL+++SD LP + GTPLIGVYF +C++L+V SL ETIFI L+H
Sbjct: 282 LGYSVFLIIVSDTLPATAIGTPLIGVYFVVCMALLVISLAETIFIVRLVHKQDLQ-QPVP 340
Query: 360 RWLHSLLLHCNSPGRCC-----PTAPQKENK----GPGLTPTHLPGV----KEPEV 402
                          PA + K G +H+ G
                  + C
Sbjct: 341 AWLRHLVLERIAWLLCLREQSTSQRPPATSQATKTDDCSAMGNHCSHMGGPQDFEKSPRD 400
```

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Query: 403 SAGQMPGPAEAELT--GGSEWTRAQREHEAQKQHSVEL---WLQFSHAMDAMLFRLYLLF 457
               P P EA L G + + R+ ++ E+ WL+ +D +LF +YLL
Sbjct: 401 RCSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREVARDWLRVGSVLDKLLFHIYLLA 460
Query: 458 MASSIITVICLWN 470
          + + IT++ LW+
Sbjct: 461 VLAYSITLVMLWS 473
>gi|30585371|gb|AAP36958.1| Homo sapiens 5-hydroxytryptamine (serotonin) receptor
          construct]
         Length = 485
 Score = 291 bits (744), Expect = 3e-77
 Identities = 169/433 (39%), Positives = 254/433 (58%), Gaps = 33/433 (7%)
Query: 66 RKPFRPVTNISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDNPFISWNPEECEGI 125
          RK RPV + PT V+I + AIL+V+E+ +L++++W
                                                  W + F + WNPE + + I
Sbjct: 52 RKGVRPVRDWRKPTTVSIDVIVYAILNVDEKNQVLTTYIWYRQYWTDEFLQWNPEDFDNI 111
Query: 126 TKMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLDIFYFP 185
          TK+S+ ++W+PDI I E +DV K+P Y+ ++G ++ KP++V + C+LDI+ FP
Sbjct: 112 TKLSIPTDSIWVPDILINEFVDVGKSPNIPYVYIRHQGEVQNYKPLQVVTACSLDIYNFP 171
Query: 186 FDQQNCTLTFSSFLYTVDSMLLDMEKEVWEITD---ASRNILQTHGEWELLGLSKATAKL 242
           FD QNC+LTF+S+L+T+ D+ +W + + R++ GEWELLG+
Sbjct: 172 FDVQNCSLTFTSWLHTIQ----DINISLWRLPEKVKSDRSVFMNQGEWELLGVLPYFREF 227
Query: 243 S-RGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITLL 301
               N Y ++ FYV IRRRP YV++LL+PS FL+ +D + FYLP SG RV FKITLL
           S
Sbjct: 228 SMESSNYYAEMKFYVVIRRRPLFYVVSLLLPSIFLMVMDIVGFYLPPNSGERVSFKITLL 287
Query: 302 LGYNVFLLMMSDLLPTS--GTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLP 359
           LGY+VFL+++SD LP + GTPLIGVYF +C++L+V SL ETIFI L+H
Sbjct: 288 LGYSVFLIIVSDTLPATAIGTPLIGVYFVVCMALLVISLAETIFIVRLVHKQDLQ-QPVP 346
Query: 360 RWLHSLLLHCNSPGRCC-----PTAPQKENK----GPGLTPTHLPGV----KEPEV 402
           WL L+L + C PA + K
                                             G +H+ G
Sbjct: 347 AWLRHLVLERIAWLLCLREQSTSQRPPATSQATKTDDCSAMGNHCSHMGGPQDFEKSPRD 406
Query: 403 SAGQMPGPAEAELT--GGSEWTRAQREHEAQKQHSVEL---WLQFSHAMDAMLFRLYLLF 457
                P P EA L G + + R+ ++ E+ WL+ +D +LF +YLL
Sbjct: 407 RCSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREVARDWLRVGSVLDKLLFHIYLLA 466
Query: 458 MASSIITVICLWN 470
           + .+ IT++ LW+
Sbict: 467 VLAYSITLVMLWS 479
 | >gi|1586341|prf||2203408A | serotonin 3AS receptor
          Length = 478
 Score = 290 bits (742), Expect = 5e-77
 Identities = 169/432 (39%), Positives = 253/432 (58%), Gaps = 33/432 (7%)
Query: 67 KPFRPVTNISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVWDNPFISWNPEECEGIT 126
           K RPV + PT V+I + AIL+V+E+ +L++++W W + F+ WNPE+ + IT
```

```
Sbjct: 47 KGVRPVRDWRKPTTVSIDVIVYAILNVDEKNQVLTTYIWYRQYWTDEFLQWNPEDFDNIT 106
Query: 127 KMSMAAKNLWLPDIFIIELMDVDKTPKGLTAYVSNEGRIRYKKPMKVDSICNLDIFYFPF 186
          K+S+ ++W+PDI I E +DV K+P Y+ ++G ++ KP++V + C+LDI+ FPF
Sbjct: 107 KLSIPTDSIWVPDILINEFVDVGKSPNIPYVYIRHQGEVQNYKPLQVVTACSLDIYNFPF 166
Query: 187 DQQNCTLTFSSFLYTVDSMLLDMEKEVWEITD---ASRNILQTHGEWELLGLSKATAKLS 243
          D QNC+LTF+S+L+T+ D+ +W + + + R++
                                                     GEWELLG+
Sbjct: 167 DVQNCSLTFTSWLHTIQ----DINISLWRLPEKVKSDRSVFMNQGEWELLGVLPYFREFS 222
Query: 244 -RGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAIDALSFYLPVKSGNRVPFKITLLL 302
              N Y ++ FYV IRRRP YV++LL+PS FL+ +D + FYLP SG RV FKITLLL
Sbjct: 223 MESSNYYAEMKFYVVIRRRPLFYVVSLLLPSIFLMVMDIVGFYLPPNSGERVSFKITLLL 282
Query: 303 GYNVFLLMMSDLLPTS--GTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPPLPR 360
          GY+VFL+++SD LP + GTPLIGVYF +C++L+V SL ETIFI L+H
Sbjct: 283 GYSVFLIIVSDTLPATAIGTPLIGVYFVVCMALLVISLTETIFIVRLVHKQDLQ-QPVPA 341
Query: 361 WLHSLLLHCNSPGRCC-----PTAPQKENK----GPGLTPTHLPGV----KEPEVS 403
                                  P A + K G
                   + C
                                                     TH+ G
Sbjct: 342 WLRHLVLERIAWLLCLREQSTSQRPPATSQATKTDDCSAMGNHCTHMGGPQDFEKSPRDR 401
Query: 404 AGQMPGPAEAELT--GGSEWTRAQREHEAQKQHSVEL---WLQFSHAMDAMLFRLYLLFM 458
              P P EA L G + + R+ ++ E+
                                                 WL+ +D + LF + YLL +
Sbjct: 402 CSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREVARDWLRVGSVLDKLLFHIYLLAV 461
Query: 459 ASSIITVICLWN 470
           + IT++ LW+
Sbjct: 462 LAYSITLVMLWS 473
```

# Get selected sequences Selectfall Deselectial

Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF Posted date: Dec 29, 2003 2:09 AM Number of letters in database: 519,349,222 Number of sequences in database: 1,585,607

Lambda K H 0.323 0.138 0.429

Gapped
Lambda K H

0.267 0.0410 0.140

Matrix: BLOSUM62
Gap Penalties: Existence: 11, Extension: 1
Number of Hits to DB: 50,992,532
Number of Sequences: 1585607
Number of extensions: 2252786
Number of successful extensions: 5073
Number of sequences better than 10.0: 97

Number of HSP's better than 10.0 without gapping: 76 Number of HSP's successfully gapped in prelim test: 21

```
Number of HSP's that attempted gapping in prelim test: 4817
Number of HSP's gapped (non-prelim): 103
length of query: 471
length of database: 519,349,222
effective HSP length: 128
effective length of query: 343
effective length of database: 316,391,526
effective search space: 108522293418
effective search space used: 108522293418
T: 11
A: 40
X1: 16 (7.5 bits)
X2: 38 (14.6 bits)
X3: 64 (24.7 bits)
S1: 41 (22.0 bits)
S2: 75 (33.5 bits)
```